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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,350	06/26/2003	Koji Maekawa	1767-116	3653
23117	7590	09/27/2005	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			NELSON, JAMES T	
			ART UNIT	PAPER NUMBER
			3637	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,350

Applicant(s)

MAEKAWA ET AL.

Examiner

James T. Nelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/19/2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/26/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species I (claims 1-14) in the reply filed on 8/19/2005 is acknowledged. Claim 15 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "dynamic electricity type of speaker" of claim 4, the "piezoelectric type of speaker" of claim 5, the "vibration mass" of claim 9 and claim 13, and the "acoustic mass" of claim 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

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“Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: The phrases “capable enhancing” on line 26 of page 1, “There is however another problem” on line 35 of page 1, “To the opening is connected” on line 18 of page 4, “both of the speaker body” on line 35 of page 4, “to output sound of which frequency range” on line 4 of page 5, and “caused on the internal lengths” on line 35 of page 5 are grammatically incorrect. The phrase “amount of capacity,” on line 20 of page 4 and on line 36 of page 7 is redundant. The sentence beginning “The aperture ports...” on line 18 of page 5 is a run-on sentence. The sentence beginning “The emitted sound...” on line 34 of page 5 is a run-on sentence. “Video” is misspelled “vide” on line 14 and on line 32 of page 5, and on line 34 of page 6. The “hollow-shaped support member (26)” on line 17 of page 2 has the wrong reference numeral. Appropriate correction is required.

Claim Objections

5. Claim 13 is objected to because of the following informalities: “the” is misspelled “eh”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 9, 12, 13, and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The “acoustic mass inside the support member” of claim 12 is not shown in the drawings or described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. The “vibration mass of the speaker” of claims 9 and 13 is not shown in the drawings or described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. The “distance between the speaker unit and the aperture port” of claim 14 is not shown in the drawings or described in the specification in such a way as to enable one skilled in the art to make and/or use the invention.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

9. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 3 recite the limitation "the speaker" on page 15. There is insufficient antecedent basis for this limitation in the claims.

The phrase "dynamic electricity type of speaker" in claim 4 on page 15 renders the claim indefinite. The phrase "dynamic electricity type" is not defined by the claim, the specification does not provide a standard for ascertaining the scope of the limitation, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The phrase "piezoelectric type of speaker" in claim 5 on page 15 renders the claim indefinite. The phrase "piezoelectric type" is not defined by the claim, the specification does not provide a standard for ascertaining the scope of the limitation, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how a "support member functioning as an acoustic pipe" can be "provided with an acoustic pipe."

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoffman (U.S. Patent 2,872,516).

Regarding claim 1: In Fig. 2, Hoffman shows a speaker-provided mounting table (10) with a pedestal (P), a hollow-shaped support member (S) for supporting the pedestal (P), the support

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member (S) also functioning as an acoustic pipe and a speaker unit (41) being equipped with a speaker (44) and attached to the support member (S).

Regarding claim 2: In Fig. 2, Hoffman shows a speaker-provided mounting table (10) according to claim 1, wherein the support member (S) is configured to function as an acoustic pipe with an acoustic capacity (C) associated with an acoustic pipe.

Regarding claim 3: In Fig. 2, Hoffman shows a speaker-provided mounting table (10) with a pedestal (P), a hollow-shaped support member (S) for supporting the pedestal, the support member (S) also functioning as an acoustic capacity (C) and a speaker unit (41) being equipped with a speaker (44) and attached to the support member (S).

Regarding claim 4: In Fig. 2, Hoffman shows a mounting table (10) according to claim 1, wherein the speaker unit (41) is composed of a dynamic electricity type of speaker (44).

Regarding claim 5: In Fig. 2, Hoffman shows a mounting table (10) according to claim 1, wherein the speaker unit (90) is composed of a piezoelectric type of speaker (E).

Regarding claim 9: In Fig. 2, Hoffman shows a mounting table (10) according to claim 3, wherein the support member (S) has an acoustic capacity (C) to cause a resonance with a vibration mass (48) of the speaker unit (44).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 6-8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent 2,872,516), in view of Wilke (U.S. Patent 5,710,395).

Regarding claim 6: In Fig. 2, Hoffman shows a mounting table according to claim 1, wherein the support member (S) is provided with an acoustic capacity cavity (C), but lacks an aperture port for outputting the sound emitted by the acoustic capacity cavity. In Fig. 2, Wilke teaches an aperture port (80) for outputting the sound emitted by the acoustic capacity cavity (5). It would have been obvious to one skilled in the art at the time of invention to combine the aperture port of Wilke with the support member of Hoffman in order output sound emitted by the acoustic capacity cavity.

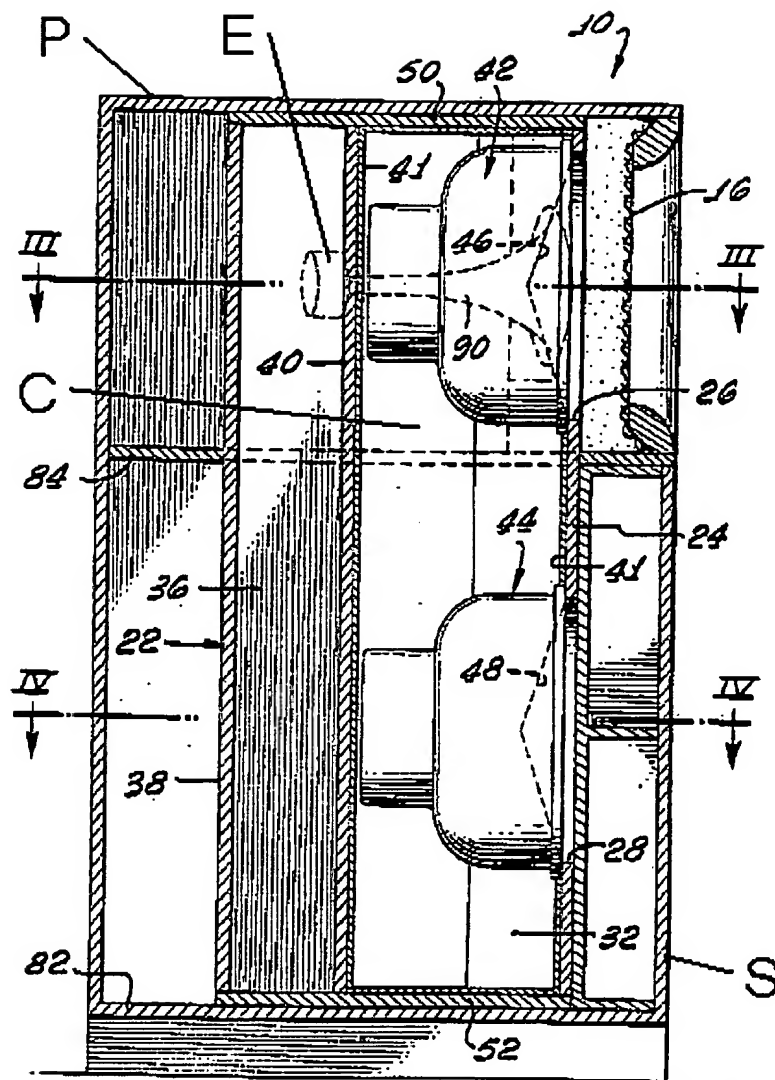
Regarding claim 7: In Fig. 2, Hoffman shows a mounting table according to claim 1, with a support member (S), but lacks an acoustic pipe for causing a pipe resonance therein and an aperture port for outputting sound generated by the pipe resonance. In Fig. 2, Wilke teaches an acoustic pipe (70) for causing a pipe resonance therein and an aperture port (80) for outputting sound generated by the pipe resonance. It would have been obvious to one skilled in the art at the time of invention to combine the acoustic pipe and aperture port of Wilke with the support member of Hoffman in order to create a pipe resonance and output the sound generated by the pipe resonance.

Regarding claim 8: In Fig. 2, Hoffman shows a mounting table according to claim 2, wherein the support member (S) is provided with an acoustic capacity (C), but lacks an acoustic pipe, which causes a resonance therein, and an aperture port for outputting sound generated by the resonance. In Fig. 2, Wilke teaches an acoustic pipe (70), which causes a resonance therein, and an aperture port (80) for outputting sound generated by the resonance. It would have

been obvious to one skilled in the art at the time of invention to combine the acoustic pipe and aperture port of Wilke with the support member of Hoffman in order to create a pipe resonance and output the sound generated by the pipe resonance.

Regarding claim 10: In Fig. 2, Hoffman, as modified by Wilke, shows a mounting table (10) according to claim 6, wherein the support member (S) is configured to be driven by the speaker unit (44) so that the support member (S) has a function of any one of a Helmholtz resonance, a pipe resonance, or a resonance being caused on both of the speaker and the acoustic capacity (C). It would have been obvious to one skilled in the art at the time of invention to incorporate the Helmholtz resonance or pipe resonance of Wilke into the support member and acoustic capacity of Hoffman in order to achieve the desired acoustical properties.

Regarding claim 11: In Fig. 2, Hoffman, as modified by Wilke, shows a mounting table (10) according to claim 6, wherein the hollow-shaped support member (S) is formed to have a fundamental frequency causing a pipe resonance, the fundamental frequency being set to a limit to replay a lower-band sound. It would have been obvious to one skilled in the art at the time of invention to combine the acoustic features of Wilke with the hollow-shaped support member of Hoffman in order to achieve a pipe resonance set to replay a lower-band sound.



Hoffman, Fig. 2

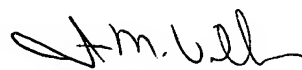
Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Smith, Rife, Frankman, Blake, Furukawa, Rumreich, Renk, Reed, Taso, Starobin, White, Wang, Domin, Johnson, Yamashita, Tsao, Shiota, and Howe all show aspects of claimed invention.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James T. Nelson whose telephone number is (571) 272-1491. The examiner can normally be reached M-F 8:00am - 4:30pm.
16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTN
09/15/2005


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PRIMARY EXAMINER
17-606350